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ABSTRACT

Tabular and descriptive data are offered on the salaried medical school faculty, including information on their academic status, demographic characteristics, and educational background. The study includes not only an analysis of current faculty composition and characteristics and institutional differences in faculty, but also an analysis of the changes in these parameters from 1970-71. The major instrument used was the Salaried Medical Faculty Questionnaire, essentially biographical in nature and consisting of 298 elements. In the 1973-74 school year, there were an estimated 26,582 salaried faculty members employed at the 77 U.S. medical schools selected for the study. Data are reported for: primary speciality in the clinical sciences; full time teachers; participation in NIH training grants; completion of internships and residencies; private practice experience; female representation on faculty; minority group representation; foreign trained personnel representation; and percentages of newly hired faculty. (LBH)

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DESCRIPTIVE STUDY OF SALARIED MEDICAL SCHOOL FACULTY

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(3) Almost six out of every ten faculty in 1973-74 had a primary specialty in the clinical sciences.

(4) In 1973-74, 71 percent of the faculty were employed as strict full-time, 17 percent as geographic full-time, and 12 percent as part-time.

(5) The mean number of responsibilities provided by the faculty to the academic and health programs of the medical school was 2.44. Over 90 percent of the M.D.'s are involved in teaching activities.

(6) Twenty three percent of the 1973-74 faculty were participating in at least one NIH training grant, which was a reduction in the participation level found in 1970-71 (29 percent).

(7) Thirteen percent of the M.D.'s have not completed an internship and another ten percent have not completed a residency.

(8) Fourty-four percent of the faculty have had only their current job.

(9) Among the faculty who have had more than their current job, 64 percent of the faculty in family medicine departments have had private practice experience.

(10) Women represented 15 percent of the total faculty in 1973-74, a percentage similar to their representation in 1970-71.

(11) Non-caucasians represent only six percent of the faculty (U.S. citizens) in 1973-74, a percentage similar to 1970-71.

(12) The percentage representation of foreign trained persons on the faculty is similar for 1970-71 and 1973-74. Canadian trained and foreign trained faculty represent 1.7 percent and 14 percent, respectively.

(13) Newly hired faculty accounted for 11 percent of the total faculty force in 1973-74, a percentage quite similar to 1970-71.

OVERVIEW

The overall report, including this overview, will focus primarily on the current (1973-74) faculty profile[1] at U.S. medical schools and use the 1970-71 profile[2] to contrast differences in faculty characteristics between the two time periods.

In the 1973-74 school year, there were an estimated 26,582 salaried faculty members employed at the 77 U.S. medical schools selected for inclusion in this study. The mean (average) number of faculty members per school is 345 with a range in size from 28 to 1005 faculty members. The total faculty count for these same schools in 1970-71 was 22,650.

Degree and Rank

Figure 1 presents the percentage of faculty by highest earned degrees held in 1973-74 and 1970-71. There is essentially no change in degree types between the time periods. This might be expected because a large percentage of the 1973-74 faculty of each degree type had been on faculty at a medical school since 1971. Overall, 75 percent of the 1973-74 faculty had been employed at a medical school since 1971.

Generally, if we look at degree types by rank in Table 1, full professors are more likely to have M.D.-Ph.D.'s than the other ranks. Assistant professors hold the highest percentage of M.D.'s and persons with third level degrees (Ph.D., Sc.D., or Ed.D., but not M.D.), hereinafter abbreviated as Ph.D., and most of those with the master's degree or less are instructors. Again

FIGURE 1

Distribution of Medical School Faculty
By Highest Academic Degree
1970-71 & 1973-74

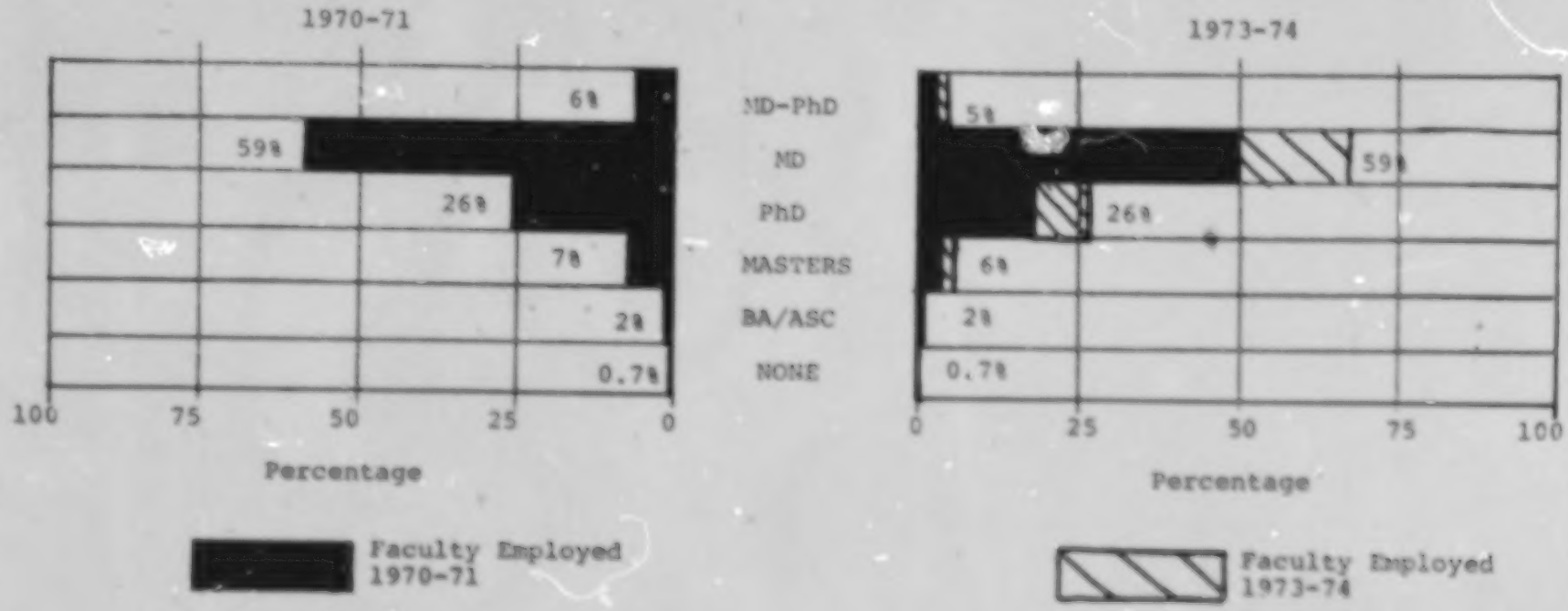

TABLE 1

Rank and Degree Distribution
Of Medical School Faculty
1970-71 & 1973-74

	1973-74		1970-71	
	#	%	#	%
FULL PROFESSOR				
MD - PhD	641	2	557	3
MD	4403	17	3574	16
PhD	1846	7	1581	7
Non-Doctoral	74	0.3	62	0.3
ASSOCIATE PROFESSOR				
MD - PhD	364	1.4	335	1.5
MD	3776	14	3214	14
PhD	1833	7	1506	7
Non-Doctoral	156	0.6	151	0.7
ASSISTANT PROFESSOR				
MD - PhD	294	1.1	292	1.3
MD	5551	21	4622	21
PhD	2659	10	2229	10
Non-Doctoral	637	2	525	2
INSTRUCTOR				
MD - PhD	45	0.2	41	0.2
MD	1608	6	1560	7
PhD	436	1.6	344	1.5
Non-Doctoral	1119	4	985	4
LECTURER & OTHER				
MD - PhD	15	0.1	13	0.1
MD	295	1.1	287	1.3
PhD	267	1.0	258	1.1
Non-Doctoral	404	1.5	352	1.6
TOTAL	26505[1]	(100%)	22520[2]	(100%)

[1] Excludes 79 (0.3 Percent) Faculty Whose Rank or Type of Degree is Unknown.

[2] Excludes 122 (0.5 Percent) Faculty Whose Rank or Type of Degree is Unknown.

there appears to be no major difference in the distribution of rank by degree between the two points in time.

Primary Specialties

Tables 2 and 3 show a distribution of faculty by their primary specialties. Approximately six out of every ten faculty in 1973-74 had a primary specialty in the Clinical Sciences. As would be expected, 90 percent of the M.D.'s had a primary specialty in the Clinical Sciences, but for M.D.-Ph.D.'s this percentage drops to 62 percent. The only shift in this distribution between the time periods reveals a slight reduction of the 1973-74 M.D.-Ph.D.'s with Basic Science specialties and a slight increase of M.D.-Ph.D.'s with Clinical Science specialties. Table 2 also indicates a shift in primary specialties for non-doctoral faculty. Though non-doctoral faculty tend to have primary specialties within Allied Health disciplines for both years there were increases of non-doctoral with Clinical Science specialties from 1970-71 to 1973-74.

Table 3 gives a further breakdown for degree type by primary specialty. It is interesting to note in Table 3 that 50 percent of faculty with the master's degree hold specialties in either Sociology or Allied Health. The greater number of M.D.-Ph.D. faculty are in surgical specialties; whereas, most M.D.'s are found in internal medicine specialties with surgical specialties a close second. The modal number of Ph.D.'s claim Biochemistry

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Major Assumptions

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TABLE 7

Mean Number of Responsibilities
Of Medical School Faculty
By Rank and Type of Degree
1970-71 & 1973-74

	1970-71		1973-74	
	MEAN	S.D.	MEAN	S.D.
FULL PROFESSOR				
MD & PhD	2.84	0.96	2.81	0.99
MD	2.98	1.00	2.98	1.01
PhD	2.37	0.79	2.40	0.79
Non-Doctoral	2.01	0.99	2.00	0.96
ASSOCIATE PROFESSOR				
MD & PhD	2.61	0.95	2.52	0.88
MD	2.73	0.94	2.76	0.95
PhD	2.17	0.69	2.21	0.73
Non-Doctoral	2.15	1.02	2.00	0.98
ASSISTANT PROFESSOR				
MD & PhD	2.5[illegible]	0.90	2.46	0.92
MD	2.50	0.93	2.50	0.92
PhD	2.07	0.72	2.05	0.74
Non-Doctoral	2.03	0.91	1.99	0.95
INSTRUCTOR				
MD & PhD	2.11	1.07	1.90	1.00
MD	2.13	0.93	2.08	0.91
PhD	1.82	0.81	1.86	0.81
Non-Doctoral	1.87	0.86	1.85	0.84
LECTURER & OTHER				
MD & PhD	1.60	1.12	1.69	0.85
MD	2.05	1.00	2.06	0.97
PhD	1.40	0.78	1.43	0.75
Non-Doctoral	1.65	0.90	1.68	0.95
Grand Mean	2.44	0.98	2.44	0.98

with rank and degree, except for M.D. faculty in the upper ranks. Generally, M.D.'s have a slightly higher mean number of responsibilities than do M.D.-Ph.D.'s. Although information on faculty workload is unavailable, the mean number of responsibilities for each rank and degree type have not changed since 1970-71.

Table 8 shows the distribution of areas of responsibilities for M.D.'s, Ph.D.'s and non-doctoral faculty. In 1973-74, 27 percent or the plurality of M.D.'s were doing teaching, research and patient service combined. The majority of Ph.D.'s (52 percent) were involved in teaching and research combined. The modal number of faculty with the masters degree or less combined teaching with patient services (17 percent).

Table 9 summarizes from Table 8 the teaching and research responsibilities of faculty. A full activity is the only one performed by the faculty member at the medical school. A part activity is performed in conjunction with one or more other activities. Table 9 shows that over 90 percent of the M.D.'s are involved in teaching activities. This percentage of involvement drops to 86 percent and 70 percent for Ph.D.'s and nondoctoral faculty, respectively. These percentages are very similar to 1970-71. With regard to research, M.D.-Ph.D.'s represent the highest percentage (81 percent) of those engaged in research as part of their total activities. It is interesting to note that 65 percent of nondoctoral faculty and 41 percent of M.D.'s do no

TABLE 8

Area of Responsibility of Medical School Faculty By Type of Degree 1973-74

ULTY RESPONSIBILITY / ONE AREA OF RESPONSIBILITY	Total[1] #	Total[1] %	M.D.[2] #	M.D.[2] %	Ph.D. #	Ph.D. %	Non-Doctoral #	Non-Doctoral %
Teaching	1654	6	1104	7	245	4	305	12
Research	1282	5	327	1.9	747	11	208	9
Service	582	2	379	2	42	.6	161	7
Administration	364	1.4	181	1.1	69	1.0	114	6
Other	101	.4	29	.2	9	.1	63	3
TWO AREAS OF RESPONSIBILITY								
Teaching and research	5210	20	1380	8	3660	52	170	7
Teaching and service	3491	13	2893	17	189	3	409	17
Teaching and administration	618	2.4	347	2	103	1.5	168	7
Teaching and other	82	.3	37	.2	12	.2	33	1.6
Research and service	183	.7	101	.6	51	.7	31	1.2
Research and administration	100	.4	23	.1	54	.8	23	1.0
Research and other	31	.1	6	.0	16	.2	9	.2
Service and administration	144	.6	73	.4	25	.4	46	2
Service and other	13	.1	7	.0	1	.0	5	.1
Administration and other	18	.1	3	.0	2	.0	13	.4
THREE AREAS OF RESPONSIBILITY								
Teaching, research and service	5149	20	4456	27	522	8	171	8
Teaching, research, and administration	1409	5	622	4	722	10	65	3
Teaching, research and other	126	.5	56	.3	50	.7	20	1.3
Research, service and administration	55	.2	22	.1	23	.3	10	.3
Research, service and other	2	.0	0	.0	0	.0	2	.1
Service, teaching and administration	1519	6	1253	7	83	1.2	183	8
Service, teaching and other	112	.4	104	.6	2	.0	6	.1
Service, administration and other	8	.0	1	.0	0	.0	7	.0
Administration, teaching and other	37	.1	17	.1	5	.1	15	.6
Administration, research and other	5	.0	0	.0	2	.0	3	.1
FOUR AREAS OF RESPONSIBILITY								
Teaching, research, service and administration	3584	14	3189	19	309	4	86	5
Teaching, research, service and other	74	.3	59	.4	9	.1	6	.4
Research, service, administration and other	1	.0	1	.0	0	.0	0	.0
Service, teaching, administration and other	29	.1	20	.1	0	.0	9	.4
Administration, teaching, research and other	36	.1	15	.0	18	.3	3	.2
FIVE AREAS OF RESPONSIBILITY								
Teaching, research, service, administration and other	162	.6	134	.8	23	.3	5	.1
TOTAL	26181	(100%)	16839	(100%)	6993	(100%)	2349	(100%)

[1] Excludes 401 (1 percent) faculty whose area of responsibility was not reported.

[2] Includes MD-PhD's.

TABLE 9

Distribution of Teaching and Research Responsibilities
Of Medical School Faculty
1970-71 & 1973-74

RESPONSIBILITIES	TOTAL[1] 1973-74		MD-PhD			MD			PhD			NON-DOCTORAL		
			1973-74		1970-71	1973-74		1970-71	1973-74		1970-71	1973-74		1970-71
	#	%	#	%	%	#	%	%	#	%	%	#	%	%
Full Teaching Activity	1654	6	49	4	4	1055	7	7	245	4	3	305	13	12
Part Teaching Activity	21638	83	1182	88	86	13400	86	85	5707	82	81	1349	57	54
No Teaching Activity	2889	11	112	8	10	932	6	8	1041	15	15	695	30	34
TOTAL	26181	100%	1343	100%	100%	15496	100%	100%	6993	100%	100%	2349	100%	100%
Full Research Activity	1282	5	73	5	6	254	1.6	1.8	747	11	10	208	9	8
Part Research Activity	16127	62	1086	81	79	8978	58	58	5459	78	77	604	26	23
No Research Activity	8772	34	184	14	15	6264	40	40	787	11	12	1537	65	69
TOTAL	26181	100%	1343	100%	100%	15496	100%	100%	6993	100%	100%	2349	100%	100%

[1] Excludes 401 (1 Percent) Faculty Whose Area of Responsibility Was Not Reported.

research, whereas only 11 percent of the Ph.D.'s do no research. This distribution is similar to that for 1970-71.

Participation in Federal Programs

A large number of medical schools participate in training and/or research programs which are sponsored by various Federal agencies. Information concerning faculty participation in these programs is presented in Tables 10 and 11.

Table 10 indicates 5,808 faculty or 23 percent of the total faculty force in 1973-74 are participating in at least one NIH training grant. This estimate, however, reflects a lower total level of participation than was found in 1970-71. The data presented in this table indicates that 29 percent of the 1970-71 faculty force was involved in NIH training grants. The greatest drop in participation rates was experienced by non-doctoral faculty. The reduction in participation rates for the other degree types was at about the same level.

The reduction in faculty participation rates in the other Federal programs is much less noticeable (Table 11). A total of 10,053 faculty or 40 percent indicate that they were currently involved in other Federal programs. The data presented in this Table indicate that, roughly 42 percent of the faculty in 1970-71 were participants in similar programs. For both years, the Ph.D's have a generally higher participation rate than other degree types.

TABLE 10

Distribution of Medical School Faculty
By Current Participation[1]
In NIH Training Grants by Degree Type
1973-74 & 1973-74

DEGREES	NON-PARTICIPANTS			ONE GRANT			TWO GRANTS			THREE GRANTS		
	1973-74		1973-74	1973-74		1973-74	1973-74		1973-74	1973-74		1973-74
	#	%[2]	%[2]	#	%[2]	%[2]	#	%[2]	%[2]	#	%[2]	%[2]
MD-PhD	847	64	61	362	28	32	61	5	6	14	1.1	1.3
MD	11587	78	72	2776	19	24	365	2	3	91	0.6	0.8
PhD	4855	71	64	1666	25	31	267	4	5	33	0.5	0.6
Non-Doctoral	2025	91	87	170	8	8	20	0.9	85	2	0.1	0.2
TOTAL	19329[3]	77	71	4962	20	25	668	3	3	138	0.6	0.8

[1]Excludes NIMH Training Grants.

[2]Excludes 1,445 (5 Percent) Faculty Whose Level of Participation is Unknown.

[3]Percentage Within Degree Type.

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Table 12 provides factory participation rates by selected Pell/non-Pell housing and research group by sector employed. Manufacturing participation rates were lower than 12 percent of the factory in the Northeast of Kingsport, with a total average of 34 percent participating in Kingsport. Some factory owners a portion, of not all of their employ-from the industry in research group. The range of total industrial participation in each Kingsport sector from 1 to 34 percent of the 308 factory buyers, and 9 to 70 percent in the other Pell/non programs.

The number of 308 factory owners for each specialty in presented in Table 11. The specialties, computer electronic (11 percent) and psychology (11 percent) were the highest participation of factory owners.

Figure 3 shows the participation rates of factory in the semi-factory type Pell/non programs by respondents agency. However, the factories' participation of Pell/non is a more accurate of support for each factory in Pell/non programs. Column 7 out of every 10 factory who are participating in one or more of these Pell/non programs was sponsored through this.

Table 13 provides factory participation rates in various Pell/non agency programs. The proximity of factory participation was similar to 308 research project groups (34 percent). This proximity is true for each factor type except self-employed by one factor higher rates of participation (38 percent) in other U.S. Department of Pell/non, laboratories and facilities rather research programs.

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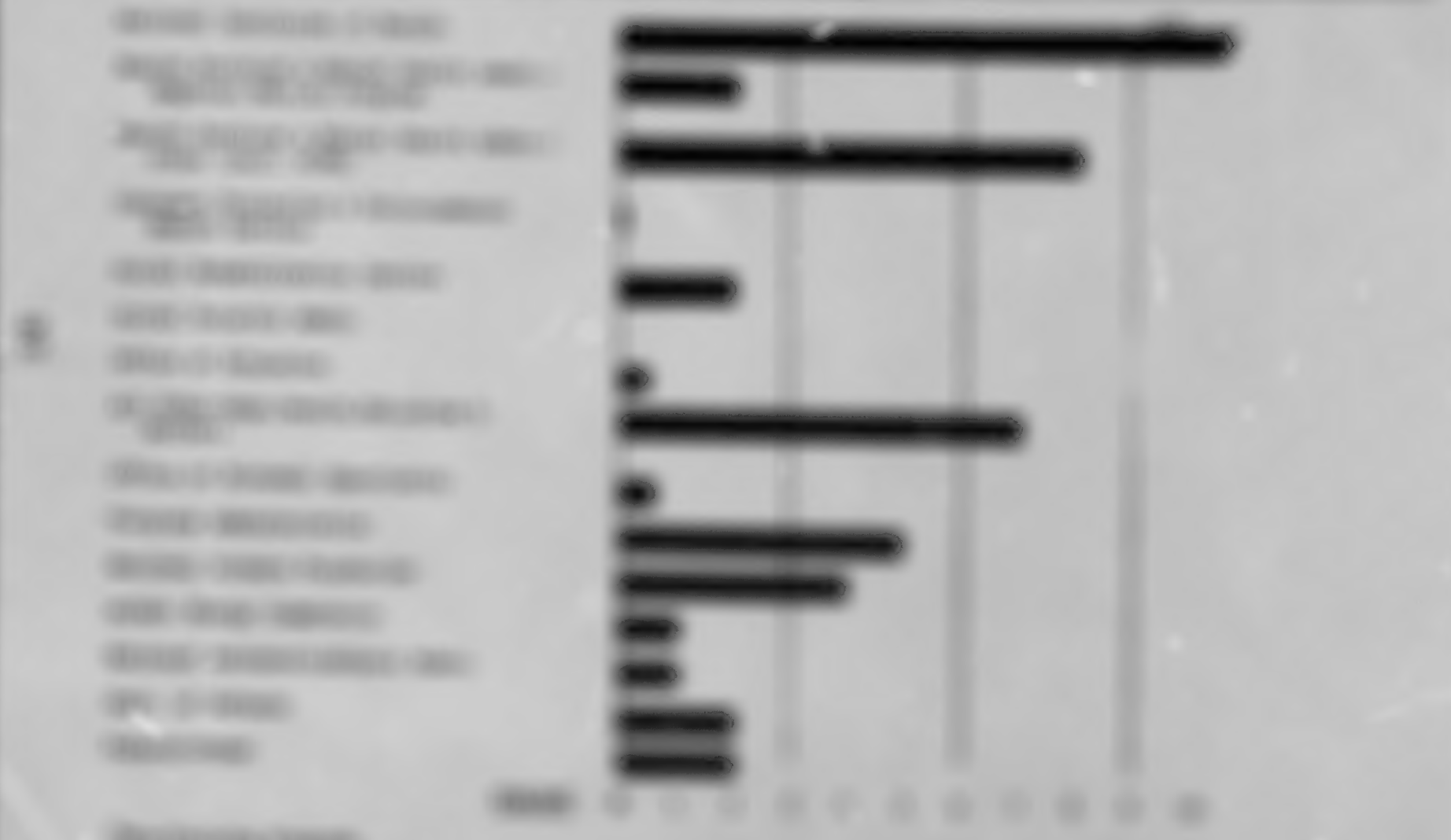

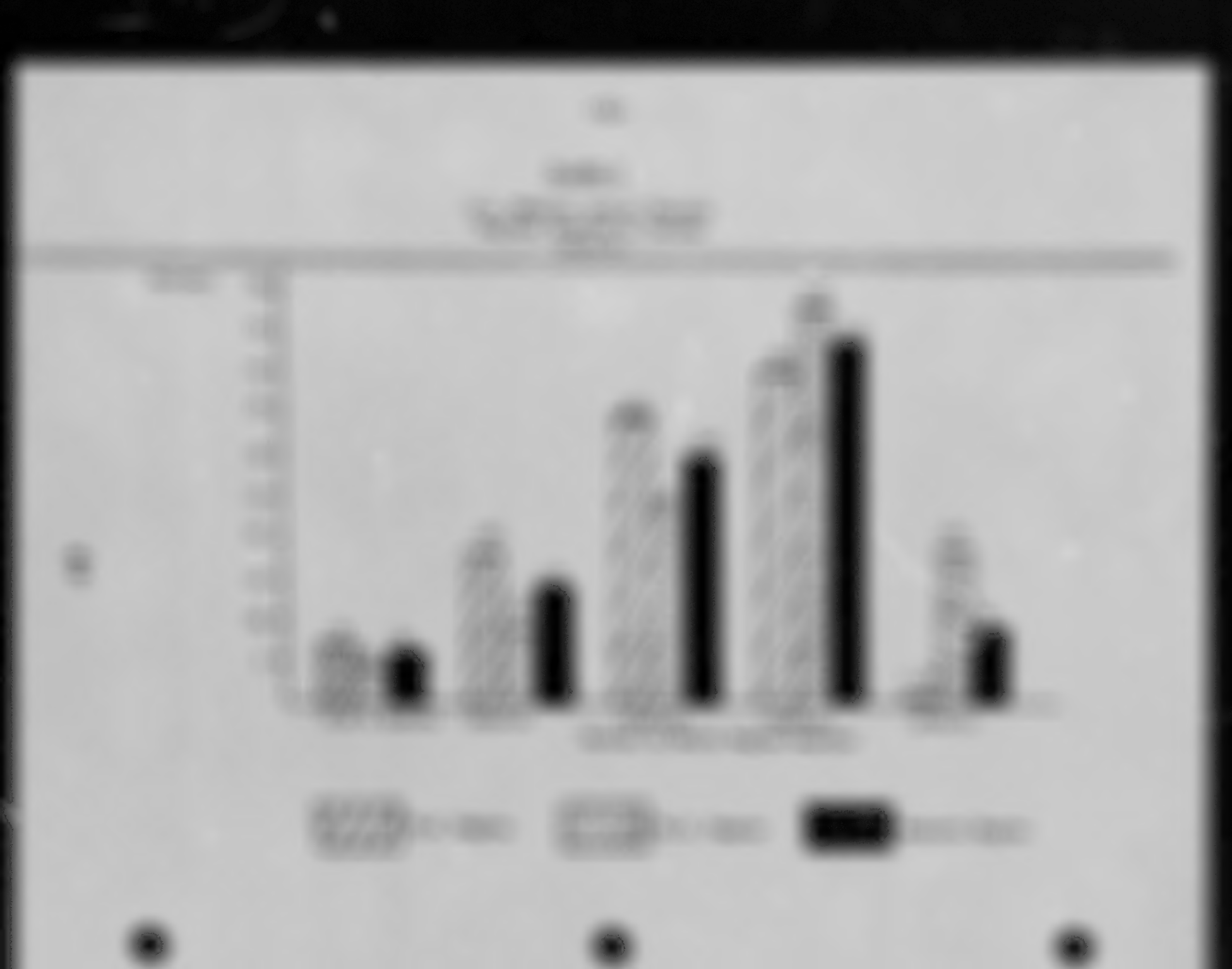

TABLE 15

Distribution of M.D. Medical School Faculty
By Rank and Number of Internships
1970-71 & 1973-74

RANK	NUMBER OF INTERNSHIPS								
	NONE			ONE			TWO		
	1973-74[1]		1970-71	1973-74		1970-71	1973-74		1970-71
	#	%[2]	%[2]	#	%[2]	%[2]	#	%[2]	%[2]
Full Professor	646	13	13	4235	84	84	143	3	3
Associate Professor	538	13	12	3505	85	85	82	2	2
Assistant Professor	725	12	12	5006	86	86	73	1.3	1.5
Instructor	222	13	13	1439	86	86	19	1.1	1.1
Lecturer & Other	41	14	15	252	84	82	7	2	2
TOTAL	2172	13	13	14437	85	85	324	1.9	2

(1) Excludes 193 (2 Percent) Faculty Whose Number of Internships is Unknown.

(2) Percentage Distribution Within Rank. Percents May Not Total 100 Because of Rounding.

Residencies

Tabulations on the number of residencies completed by M.D. faculty is shown in Table 16. The middle ranks have the lowest percentage of faculty without residencies. Each rank has about fifty percent faculty with one residency and another twenty-five percent with two residencies. The distribution of residencies by rank has not changed substantially since 1970-71.

Table 17 displays the total number of completed residencies by the type of residency. A total of 6575 M.D. faculty took a residency in internal medicine which represented almost one out of every three residencies. Pediatrics and general surgery are the next highest in popularity, both contributing 11 percent of the residencies.

Board Certifications

The number of board certifications for each rank are given in Table 18. Unlike internships and residencies, the percent of M.D.'s without board certification is clearly related to rank. Sixty-seven percent of the instructors are not board certified,

TABLE 16

Distribution of M.D. Medical School Faculty
By Rank and Number of Residencies
1970-71 & 1973-74

RANK	NUMBER OF RESIDENCIES														
	NONE			ONE			TWO			THREE			FOUR		
	1973-74[1]		1970-71	1973-74		1970-71	1973-74		1970-71	1973-74		1970-71	1973-74		1970-71
	#	%[2]	%[2]	#	%[2]	%[2]	#	%[2]	%[2]	#	%[2]	%[2]	#	%[2]	%[2]
Full Professor	677	14	14	2604	52	53	1319	26	26	335	7	6	70	1.4	1.4
Associate Professor	414	10	10	2120	52	53	1161	28	28	335	8	8	80	2	2
Assistant Professor	446	8	8	3180	55	54	1580	27	29	472	8	8	121	2	2
Instructor	157	9	8	952	57	60	443	26	24	98	6	6	32	1.9	2
Lecturer and Other	52	17	15	136	45	51	91	30	27	19	6	6	1	0.3	1.0
TOTAL	1746	10	10	8992	53	54	4594	27	27	1259	7	7	304	1.8	1.9

(1) Excludes 231 (1 Percent) Faculty Whose Number of Residencies is Unknown.

(2) Percentage Distribution Within Rank. Percents May Not Total 100 Because of Rounding.

TABLE 17

Distribution of Residency Specialties
Of M.D. Medical School Faculty
1973-74

RESIDENCY	NUMBER	PERCENT
Pathology	1861	8
Anesthesiology	879	4
Dermatology	242	1.1
Internal Medicine	6750	30
Neurology	801	4
Obstetrics-Gynecology	993	4
Ophthamology	387	1.7
Orthopedic Surgery	492	2
Otolaryngology	238	1.1
Pediatrics	2496	11
Physical Medicine & Rehab.	224	1.0
Child Psychiatry	180	0.8
General Psychiatry	2248	10
Radiology	1061	5
General Surgery	2484	11
Neurologyical Surgery	253	1.1
Plastic Surgery	108	0.5
Thoracic Surgery	185	0.8
Urology	294	1.3
General Practice	126	0.6
Other	309	1.4
TOTAL	22611 [1]	(100%)

[1] The Mean Number of Residencies for the 15149 M.D. Faculty who had Residencies was 1.5.

TABLE 16

Distribution of M.D. Medical School Faculty
By Rank and Number of Board Certifications
1970-71 & 1973-74

RANK	NUMBER OF CERTIFICATIONS								
	NONE			ONE			TWO		
	1973-74[1]		1970-71	1973-74		1970-71	1973-74		1970-71
	#	%[2]	%[2]	#	%[2]	%[2]	#	%[2]	%[2]
Full Professor	962	19	18	3291	65	67	776	15	15
Associate Professor	932	23	21	2620	64	66	543	13	13
Assistant Professor	2206	38	35	3305	54	58	435	8	7
Instructor	1124	67	71	525	31	27	31	1.8	1.7
Lecturer & Other	169	54	59	123	40	37	12	4	4
TOTAL	5387	32	31	9654	57	59	1799	11	10

(1) Excludes 295 (1.7 Percent) Faculty Whose Number of Board Certifications is Unknown.

(2) Percentage Distribution Within Rank. Percents May Not Total 100 Because of Rounding.

compared to only 19 percent of the full professors. Full professors and associate professors both have about 65 percent of the faculty with one certification. Instructors and lecturers experienced a slight increase in the percent of faculty with board certification since 1970-71.

Table 19 presents the board certification specialties completed by the M.D. faculty. As with residencies, the majority of certifications were awarded in internal medicine (31 percent) and pediatrics (13 percent).

Predoctoral Support

Pre-doctoral support refers to support received while working toward a doctoral degree. As observed in Table 20, only 26 percent of the faculty who responded to this question had received pre-doctoral support, a percentage similar to that for 1970-71. Since nearly two-thirds of the faculty are M.D.'s, the low percentage rate is primarily the result of less than one out of 10 M.D.'s having received pre-doctoral support. Most PhD's (44 percent), however, have had pre-doctoral support.

Table 21 presents the source of pre-doctoral awards. Clearly, NIH has provided more support than any other single source (37%). When looking at degree type, private foundations, along with NIH have provided the most support for M.D. faculty.

[illegible]

[illegible] of Board Certificates
Awarded to O.B., Medical School Faculty
[illegible]

[illegible]	Diplomate	[illegible]
[illegible]	458	0
Clinical Pathology	289	0
OB & Clinical Pathology	248	0
Anesthesiology	519	0
Dermatology	285	0
General Medicine	2736	31
Cardiovascular Diseases	248	0
Neurology	240	0
Obstetrics and Gynecology	430	0
Ophthalmology	278	0
Orthopedic Surgery	311	0
Otolaryngology	245	0
Pediatrics	1004	10
Physical Medicine and Rehab.	141	0
Psychiatry and Neurology	713	0
Public Psychiatry	135	0.0
Psychiatry	535	0
Radiology	712	0
Surgery	1469	0
Neurological Surgery	245	0
Thoracic Surgery	224	0
Urology	272	0
Public Practice	230	0
Other	1304	10
TOTAL	11,250[1]	[illegible]

(1) Total Diplomate on the average 1.25 Certificates for the [illegible] Faculty who Have Certified.

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TABLE 25

Pre- And Post-Doctoral Support Of
Medical School Faculty By Department
1973-74

DEPARTMENT	PRE-DOCTORAL SUPPORT		POST-DOCTORAL SUPPORT	
	#	%[1]	#	%[1]
Anatomy	531	58	385	42
Biochemistry	694	69	727	72
Biophysics	71	56	79	62
Genetics	47	57	54	65
Microbiology	434	56	434	56
Pathology	318	18	771	44
Pharmacology	420	61	448	65
Physiology	567	60	589	63
Biometry	40	43	16	17
Anesthesiology	50	6	202	26
Dermatology	24	14	82	49
Molecular Biology	79	61	84	65
Medicine	565	13	2849	65
Neurology	85	16	312	58
Ob-Gyn	104	11	333	36
Ophthalmology	58	13	209	48
Orthopedics	18	8	60	28
Otolaryngology	47	18	70	27
Pediatrics	293	13	1174	53
Phys Med & Rehab	50	12	118	29
Psychiatry	592	20	950	31
Pub Hlth & Prev Med	204	26	208	27
Radiology	205	14	457	30
Surgery	248	11	871	37
Family Practice	48	14	36	10
Other	326	20	366	22

[1] Reflects the Percentage Within Each Department.

EMPLOYMENT HISTORY

This chapter highlights information on the employment careers of medical school faculty. The topics include number of professional jobs, length of current employment, activity prior to first medical school appointment, and the type of previous employment for those with more than one job.

Number of Jobs

The total number of professional jobs for each degree type is presented in Table 26. The figures indicate that 44 percent of the total faculty have had only their current job. Almost three-fourths of the faculty with Master's degrees, however, have had other jobs, the highest average of the degree types.

The current appointment was the first professional employment for over one-half of the M.D. faculty. About thirty percent of the faculty have had two jobs, a percentage similar for each degree holder.

It is interesting to note the differences in these percentages between the two time periods. For each degree type, the percentage of those with more than one job has increased marginally since 1970-71.

Length of Current Employment

Table 27 presents the average length of current employment of faculty for each rank and degree type. While faculty with the Master's degree were shown to be over represented among those with

TABLE 26

Total Number of Jobs
Of Medical School Faculty
By Type of Degree
1970-71 & 1973-74

NUMBER OF JOBS	MD-PhD			MD			PhD			MASTERS			BACH/ASC & NONE			TOTAL		
	1973-74		1970-71	1973-74		1970-71	1973-74		1970-71	1973-74		1970-71	1973-74		1970-71	1973-74		1970-71
	#	%	%	#	%	%	#	%	%	#	%	%	#	%	%	#	%	%
One (Current)	567	42	46	7516	48	53	2876	41	46	450	27	34	322	42	52	11731	44	49
Two	385	28	30	4630	29	28	2110	30	29	452	28	29	215	28	25	7792	29	28
Three	228	17	15	2191	14	13	1186	17	16	371	23	21	99	13	13	4075	15	14
Four	87	6	5	920	6	5	549	8	6	195	12	10	67	9	7	188	7	5
Five	62	5	3	348	2	1.4	216	3	2.2	98	6	4	37	5	3	761	3	1.9
Six	26	1.9	1.4	108	0.7	0.4	88	1.3	0.7	50	3	1.2	10	1.3	0.4	282	1.1	0.6
Seven	8	0.6	0.2	50	0.3	0.1	29	0.4	0.3	27	1.6	0.3	9	1.2	0.3	123	0.5	0.2
TOTAL	1363	(100%)	(100%)	15763	(100%)	(100%)	7054	(100%)	(100%)	1643	(100%)	(100%)	575	(100%)	(100%)	26583	(100%)	(100%)

TABLE 27

Length of Current Employment
Of Medical School Faculty By
Rank and Type of Degree
1970-71 & 1973-74

	1973-74		1970-71	
	MEAN YEARS	S.D.	MEAN YEARS	S.D.
FULL PROFESSORS				
MD - PhD	11.97	8.21	10.58	8.34
MD	12.33	8.10	11.07	8.08
PhD	12.54	7.48	11.10	7.62
Non-Doctoral	14.50	9.64	12.69	9.44
ASSOCIATE PROFESSORS				
MD - PhD	7.49	5.34	6.44	5.10
MD	8.05	5.60	7.49	5.51
PhD	8.22	5.25	7.06	4.93
Non-Doctoral	11.48	7.34	10.03	6.98
ASSISTANT PROFESSORS				
MD - PhD	4.24	3.73	3.30	3.15
MD	4.52	4.15	3.66	4.04
PhD	4.26	3.37	3.31	3.41
Non-Doctoral	7.60	5.91	6.24	6.03
INSTRUCTORS				
MD - PhD	3.67	4.61	2.88	3.88
MD	2.81	2.85	1.84	2.91
PhD	2.58	2.98	2.32	3.52
Non-Doctoral	5.01	5.33	4.14	4.92
LECTURERS				
MD - PhD	3.07	4.45	4.23	4.97
MD	3.81	4.74	3.31	4.96
PhD	4.79	5.12	3.91	4.60
Non-Doctoral	5.81	5.52	5.00	5.45

more than one job, much of the employment movement must have appeared earlier in their careers. As noted in Table 27, faculty with Master's degrees have been employed at their current medical school longer than the other degree types. This is true for each rank. When looking at other degree types, increase in rank is associated with increase in length of current employment, as one might expect. Within each rank, however, faculty with different types of doctoral degrees have about the same average length of current employment. When comparing 1973-74 figures with 1970-71 figures, there appears to be less job turnover in recent years.

Original Source

The original employment source of faculty is noted in Table 28. It is apparent that the majority of faculty came from some professional training program (63 percent), rather than professional employment. Roughly, only about three out of ten M.D. faculty came from professional employment. The plurality of M.D.'s were primarily engaged in an internship or residency (40 percent).

The majority of Ph.D.'s also came from a training program (54 percent). Additionally, of those Ph.D.'s who came from professional employment, most were at schools (non-medical) in other than a full faculty position.

Previous Employment

Figure 4 presents the last employment location of faculty who have had more than their current job. Unfortunately, for the non-doctoral faculty, nearly half had "other" or unknown

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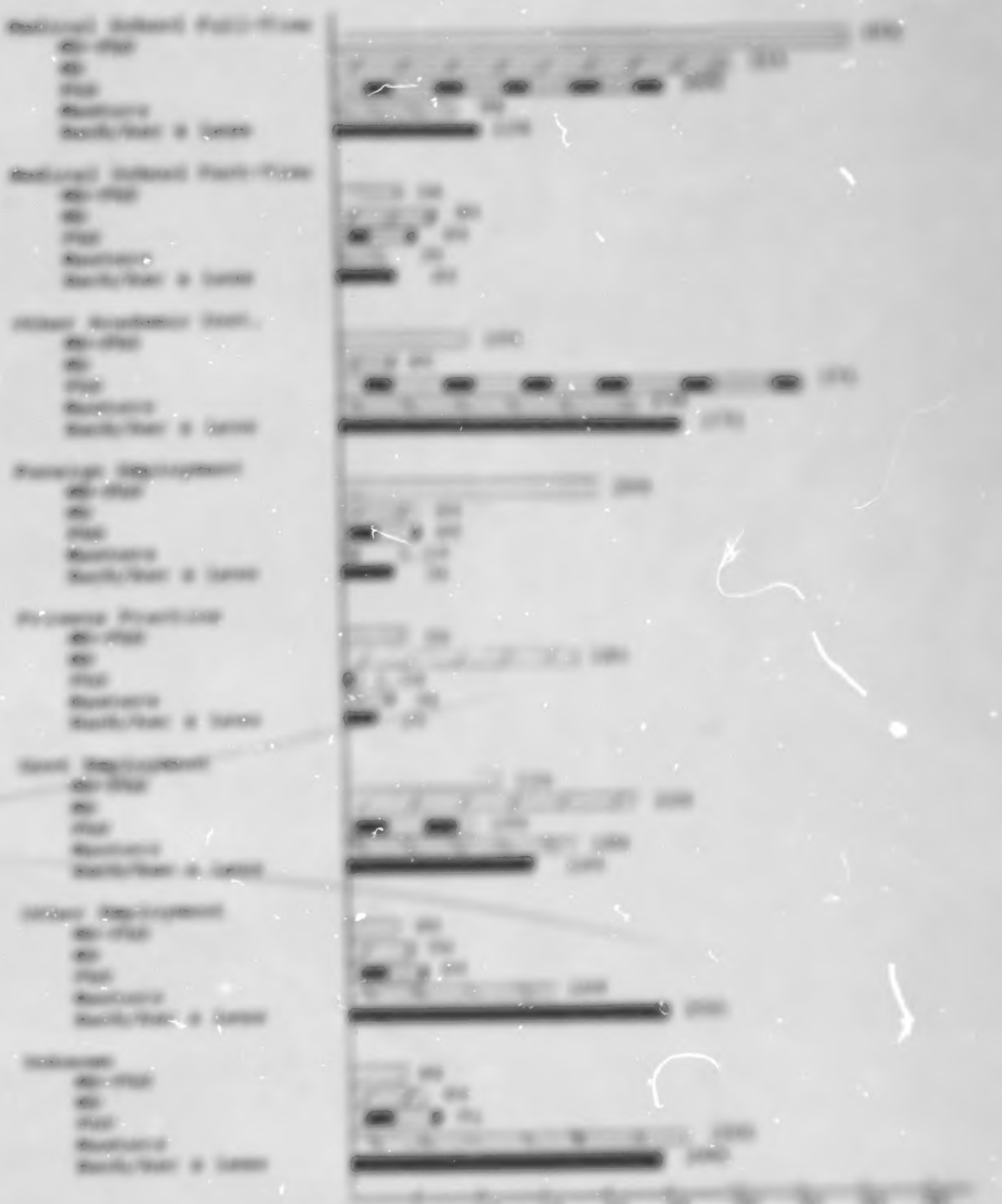
FIGURE 7

Exercise Employment Longitude
Of National Guard Forces
By Type of Degree
(1971-79)



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numbers of professional jobs across degree types, except for M.D.'s. Over half of all women with M.D.'s (54 percent) are in their first professional job, as compared to 46 percent of male M.D.'s.

When looking at the original employment source of male and female faculty, one observes little difference except for a higher percentage of men from military and Federal government sources. It is also interesting to note that a higher percentage of women come directly from an internship or residency than do men.

Minority Faculty Members

The Faculty Roster Questionnaire elicits responses from faculty as to their racial or ethnic identification. This section of the special studies compares faculty who are grouped by the racial/ethnic group of their designation on a number of variables.

The data on the following tables are from faculty who are U.S. citizens, only. Out of 26,582 faculty in 1973-74, 22728 or 86 percent are U.S. citizens.

Table 30a presents the questionnaire list of racial/ethnic categories by type of degree for the two points in time. As observed in Table 30a, non-Caucasians represent only 6 percent of the faculty force in 1973-74, a percentage quite similar to the same 77 medical schools in 1970-71. Black faculty have the highest percentage of minority representation in the total faculty at 2 percent.

When looking at degree types, Black and Mexican American faculty have the highest group percentages of non-doctoral faculty at 31 percent and 22 percent, respectively. Eighty-five percent of those designated as "other minority" are M.D.'s, constituting the highest percentage across groups.

Because of the small number and representation of non-Caucasian faculty, some ethnic groups were combined in Tables

TABLE 30a

Race/Ethnic Origin of Medical
School Faculty With U.S. Citizenship
By Type of Degree
1970-71 & 1973-74

RACE/ETHNIC ORIGIN	1973-74		1970-71		1973-74								1970-71							
	TOTAL		TOTAL		MD-PhD		MD		PhD		Non-PhD		MD-PhD		MD		PhD		Non-PhD	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Black American	450	2	320	1.7	9	2	218	48	83	18	140	31	8	25	157	49	58	18	97	30
American Indian	10	0.0	8	0.0	1	10	6	60	2	20	1	10	1	13	4	50	2	25	1	13
Mexican American	49	0.2	28	0.2	1	2	22	45	15	31	11	22	-	-	16	57	7	25	5	18
Puerto Rican	287	1.3	249	1.3	8	3	217	76	30	10	32	11	7	3	179	72	29	12	34	14
Other Spanish	160	0.7	131	0.7	5	3	136	85	14	9	5	3	4	3	111	85	9	7	7	5
Chinese/Japanese	321	1.4	251	1.3	24	7	158	49	116	36	23	7	24	10	121	48	90	36	16	6
Other Asian	130	0.6	98	0.5	13	10	75	58	40	31	2	2	10	10	62	63	24	24	2	2
Caucasian	21321	94	17678	94	922	4	12551	59	5855	27	1993	9	833	5	10456	59	4708	27	1681	10
TOTAL	22728	(100%)	18763	(100%)																

30b and c. The revised categories are Caucasian, Black, Asian (Chinese, Japanese, and other Asian) and other minority (American Indian, Mexican American, Puerto Rican, other Spanish).

Table 30b presents the distribution of ethnic groups by rank and type of degree for 1973-74. While each ethnic group has the highest percentages of their faculty as M.D. assistant professors, Blacks and Asians have lower percentages of M.D. faculty in the upper ranks.

Asian Ph.D.'s have greater representation in the upper ranks than do the other groups, especially when compared to Black and "other minority" faculty.

Table 30c compares faculty ethnic groups by their sex, specialty, nature of employment, responsibilities, total number of jobs, and years of current employment.

When comparing the ethnic groups by sex, the non-Caucasian groups have generally higher percentages of women faculty. In fact, close to one out of every three Black faculty members is a woman, the highest ratio among the groups.

While slightly over half the Caucasian, Black and Asian faculty have Clinical Science specialties, 72 percent of the "other minority faculty" have Clinical Science specialties. Caucasians and Asians, also have high percentages of faculty with Basic Science specialties at 35 and 38 percent each. Black facult

TABLE 35b

Rank And Degree Distribution
Of Medical School Faculty
With U.S. Citizenship By
Ethnic Group
1973-74

FULL PROFESSORS	CAUCASIAN 1974	BLACK 1974	ASIAN 1974	OTHER MINORITY 1974
MD - PhD	2	1.1	5	1.5
MD	14	7	10	10
PhD	6	3	6	2
Non-Doctoral	0.3	0	0	0.4
ASSOCIATE PROFESSORS				
MD - PhD	1.1	0.7	1.3	1.3
MD	15	12	10	17
PhD	7	4	12	5
Non-Doctoral	0.6	0.9	0.2	0.4
ASSISTANT PROFESSORS				
MD - PhD	0.7	0.2	2	0.4
MD	20	20	10	20
PhD	10	5	12	5
Non-Doctoral	3	7	0.7	3
INSTRUCTORS				
MD - PhD	0.1	0	0	0
MD	5	9	4	10
PhD	1.0	1.3	0.4	1.1
Non-Doctoral	4	17	3	1.7
LECTURERS & OTHER				
MD - PhD	0	0	0	0
MD	1.0	0.9	1.0	0.2
PhD	0.8	0.6	2	0.4
Non-Doctoral	1.5	6	1.3	0.6
TOTAL	(100%)	(100%)	(100%)	(100%)

Table 9b

Demographic and Employment
Characteristics of Medical School
Faculty Who Are U.S. Citizens by
Ethnic Group
1973-74

	[illegible]	[illegible]	[illegible]	[illegible]
	100%	100%	100%	100%
SPECIALTIES				
Basic Sciences	25	25	36	28
Clinical Sciences	52	58	54	71
Physical Sciences	1.6	0.7	3	0.8
Behavioral Sciences	5	15	4.7	4
Allied Health	4	4	3	3
Administration	0.9	1	0.2	0.4
Other	1.9	0.7	0.9	1.4
SEX				
Male	85	71	81	83
Female	15	29	19	17
NUMBER OF EMPLOYERS				
Only Full-Time	71	66	72	66
Geographic Full-Time	17	11	14	15
Part-Time	12	17	13	19
NUMBER OF RESPONSIBILITIES				
1	14	22	19	14
2	37	44	36	48
3	33	25	36	25
4	15	7	11	10
5	0.7	0.9	0.2	0.2
RESPONSIBILITIES				
Full Teaching	4	9	7	12
Part Teaching	83	73	78	66
Other	11	18	15	8
Full Research	4	3	10	1.6
Part Research	62	35	44	42
Other	34	62	35	57
TOTAL NUMBER OF JOBS				
1 Employer	85	75	88	86
2	38	26	29	26
3	13	17	10	12
4	4	11	6	4
5	1	1	4	1
6	1.0	1	1.0	0.4
7	0.4	1	0.7	0
YEARS CURRENT EMPLOYMENT				
0-5	48	58	49	43
6-10	24	23	21	28
11-15	15	12	17	21
16-20	6	4	5	5
21-25	1	1.8	1.6	1.6
26+	1	1.1	1.3	0.8

have higher percentages of faculty with Mexican-American and Black Health Specialties.

Asian and the "other minority" faculty have higher percentages of part-time faculty at 17 percent and 20 percent respectively. The "other minority" faculty have a lower percentage (10 percent) of persons with geographic appointments than do the other groups.

[illegible] faculty have the highest percentage of persons involved in three or more areas of responsibilities at 40 [illegible] 50 percent, while non-[illegible] faculty have higher percentages of faculty with only one responsibility.

The "other minority" faculty have the highest percentage of faculty who teach on a full or part activity (82 percent), while 75 percent of the Asians are involved in research with a full or part activity, the highest for the groups. Only 57.7 percent of Black faculty and 64 percent of "other minority" faculty are involved in research.

Black and Asian faculty have the lowest percentages of faculty who are in their first professional job at 3.33 percent and 38 percent, respectively. Black faculty also [illegible] the highest percentage of faculty who have been employed less than 4 years (54 percent).

Foreign Investment in U.S. Nonbank Corporate Industries

U.S. nonbank interest Foreign and have expressed their position interest investment preparations in industries other than the United States have generated much investment information available industry. While analyses of the specific industry level U.S. investment, investment and foreign interest companies for comparisons as a number of characteristics.

Table Six shows the distributions of these groups by their percentages of the total and the type of source for 1974-75 and 1976-77. See also Appendix to Table for that the percentage representations of foreign interest persons in the industry in each analysis has been pointed in time. Canadian interest industry experience 1.7 percent and foreign interest representing 43 percent of the total industry.

When looking at type of degree, foreign industry represent 30 percent of all those who are B.A.-MA.S. and 27 percent of the total B.A. industry firms. Generally, Canadian and European interest industry have lower representations of industry with non-M.A. degrees.

Table Six compares the work by degree percentages of the three countries of industry groups.

Canadian interest industry have higher percentages of U.S. full professors (40 percent) and executive professors (27 percent)

[illegible]

[illegible]

[illegible]	[illegible]			[illegible]			[illegible]		
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[redacted]

Newly Hired Faculty

The faculty new to medical schools in 1973-74 (includes medical school transfers) totaled 2,851 persons, accounting for 11 percent of the total faculty force in that year. In the 1970-71 school year, the new hire total was 2188 persons which was 10 percent of the faculty force that year.

Table 32a shows the newly hired faculty in 1973-74 and 1970-71 by their rank and type of degree. When looking for changes in new faculty since 1970-71, one can note an increase in appointments for the upper ranks and a decrease in appointments at the instructor level. The greatest drop was experienced by new M.D. instructors who represented 43 percent of the M.D.'s hired in 1970-71, and 31 percent in 1973-74.

Table 32b presents characteristics of newly hired faculty in 1973-74 for sex, age, citizenship, country of training, nature of employment, responsibilities, source of original employment, total number of jobs and location of previous employment for each degree type.

One can note that newly hired women represented 18 percent of the new hires in 1973-74. This percentage is slightly higher than their overall representation in the total faculty (Table 29a).

Almost half of the newly hired M.D.'s were thirty to thirty-

TABLE 32a

Newly Hired Medical School
Faculty By Type of Degree
1970-71 & 1973-74

DESCRIPTORS	1973-74					1970-71				
	TOTAL	MD-PhD	MD	PhD	NON-DOCTORAL	TOTAL	MD-PhD	MD	PhD	NON-DOCTORAL
	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Rank										
Full Professor	7	15	9	5	0.7	4	22	4	6	1.1
Associate Professor	9	17	10	10	0.7	6	24	5	10	1.0
Assistant Professor	46	50	47	55	14	42	42	43	55	10
Instructor	32	14	31	24	69	40	13	43	22	69
Lecturer & Other	6	4	4	6	16	8	-	6	8	19

TABLE 32b

Demographic and Appointment Characterics tics of Newly Hired Medical School Faculty by Type of Degree
1970-71 & 1973-74

DESCRIPTORS	1973-74				
	TOTAL	MD-PhD	MD	PhD	NON-DOCTORAL
	100%	100%	100%	100%	100%
Sex					
Male	82	89	89	80	37
Female	18	11	11	20	63
Age					
Below 25	2	0.9	0.2	1.5	16
25-29	23	7	17	37	34
30-34	41	29	46	36	20
35-39	15	37	16	12	10
40-44	8	9	8	7	7
45-49	6	9	6	3	6
50-54	3	4	4	1.7	4
55-59	1.2	1.9	1.3	0.8	1.5
60-64	0.4	0.9	0.4	0.3	0.0
Above 64	0.5	0.9	0.6	0.2	0.7
Nature of Employment					
Strict Full-Time	74	84	68	86	76
Geographic Full-Time	13	10	16	7	8
Part-Time	13	6	15	7	16
Responsibilities					
Full Teaching	5	4	5	4	12
Part Teaching	80	85	86	74	59
Other Activity	14	11	9	22	29
Full Research	6	6	1.6	17	8
Part Research	55	77	53	72	25
Other Activity	39	17	46	12	68
Total # of Jobs					
1 (Current)	34	28	40	27	13
2	32	22	33	32	26
3	16	20	13	19	22
4	10	15	8	12	19
5	5	10	3	6	12
6	2	5	1.0	3	5
7	1.2	0.0	0.8	1.5	3
Country of Training					
U.S.	81	49	77	94	100
Canadian	1.7	3	2	0.9	0.0
Foreign	16	48	21	5	0.8

TABLE 32b (Cont.)

DESCRIPTORS	1973-74				
	TOTAL	MD-PhD	MD	PhD	NON-DOCTORAL
	100%	100%	100%	100%	100%
Source					
Professional Employment:					
Volunteer-Same School	1.3	-	1.6	0.2	1.9
Volunteer-Other School	0.4	0.9	0.6	-	-
Faculty-U.S. Non-Med School	5	1.9	0.8	13	11
Non-Medical School	0.9	1.9	0.1	3	2
Foreign	1.8	6	1.7	2	-
Foreign-Non-Academic	0.4	1.9	0.3	0.3	0.4
Private Practice	5	4	8	0.5	-
U.S. Active Mil Service	5	0.9	7	0.2	0.8
U.S. Government	4	4	5	3	5
U.S. Hosp Non-Federal	3	3	2	2	12
Fdn or Res Inst	0.6	-	0.2	1.4	1.5
U.S. St Loc Government	3	0.9	1.3	2	14
Priv Bus or Ind	0.7	-	0.1	0.9	5
Training:					
U.S. Med School	7	7	6	10	3
U.S. Educ Institution	9	9	0.5	24	26
Intern-Residency	29	34	43	0.4	-
NIH/NIMH Trn Program	14	11	12	24	0.8
Other Trn Program	8	11	8	8	6
Other	3	-	1.3	3	11
Unknown	1	3	1.1	0.6	0.8
Previous Employment Location:					
Med School Full-Time	27	32	30	26	11
Med School Part-Time	7	7	7	7	5
Other Academic	15	12	2	42	20
Foreign Employment	7	25	7	6	1.3
Private Practice	8	4	14	1.1	0.4
Government Employment	19	9	25	7	20
Other Employment	6	5	4	5	20
Unknown	11	7	11	6	22
Citizenship					
U.S.	83	53	81	88	98
Canadia	1.4	4	1.6	0.8	0.4
Foreign	15	43	17	11	1.8

four years of age (46 percent), while the plurality of M.D.-Ph.D.'s were thirty-five to forty years of age (37 percent). One-half of the newly hired faculty with non-doctoral degrees were under thirty years of age.

Over eight out of ten newly hired faculty in 1973-74 were U.S. citizens. However, only 53 percent of newly hired M.D.-Ph.D.'s had a current U.S. citizenship. Furthermore, 48 percent of the newly hired M.D.-Ph.D.'s and 21 percent of the newly hired M.D.'s received their professional preparation in a foreign country. The foreign trained faculty represent 16 percent of the new hires, a percentage about the same as their fraction in the total faculty for 1973-74 (Table 31a).

Eighty-six percent of the new Ph.D.'s and 84 percent of the M.D.-Ph.D.'s were appointed with strict-full-time positions. M.D.'s and non-doctoral faculty had the greatest percentages of faculty who were hired only part-time, 15 percent and 16 percent respectively.

When looking at the areas of responsibility, 91 percent of the new M.D.'s and 89 percent of the new M.D.-Ph.D.'s were involved in teaching activities. However, 29 percent of the newly hired non-doctoral faculty had no teaching assignments.

Forty-six percent of the newly hired M.D.'s had no research responsibilities, a percentage higher than was observed in the

total M.D. faculty force (41 percent no research) in 1973-74. One can also note that 89 percent of the new Ph.D.'s were involved in research, whereas only 33 percent of non-doctoral new hires had research responsibilities.

When looking at the original source or activity of faculty prior to the time of first medical school appointment, one can note that the plurality of M.D.-Ph.D.'s (34 percent) and M.D.'s (43 percent) came directly from an internship or residency. Almost 50 percent of the Ph.D.'s came from U.S. educational institutions or NIH/NIMH training programs. However, over half of the non-doctoral faculty originally came from other employment.

This is consistent with the total number of jobs by type of degree. Only 13 percent of the newly hired non-doctoral faculty are in their first professional job compared to 40 percent of the newly hired M.D.'s.

When looking at the previous employment locations of the newly hired faculty who came from other employment, the plurality of M.D.-Ph.D.'s and M.D.'s came from full-time positions at other medical schools, 32 percent and 38 percent respectively. However, another 25 percent of the M.D.-Ph.D.'s came from foreign employment, while 25 percent of the M.D.'s had U.S. government positions.

The plurality of Ph.D.'s (43 percent) transfer to non-medical academic institutions, but also had a large percentage transfer full-time positions to another medical school (39 percent).

Appendix B

1. University of Alabama
2. University of South Alabama
3. University of Arizona
4. University of Arkansas
5. University of Southern California
6. Stanford University
7. Loma Linda University
8. University of California, Los Angeles
9. University of California, Irvine
10. University of California, Davis
11. Yale University
12. University of Connecticut
13. University of Florida
14. University of South Florida
15. Florida State University
16. Medical College of Georgia
17. Emory University
18. University of Hawaii
19. University of Chicago
20. University of Illinois
21. University of Health Sciencec, Chicago
22. Loyola University of Chicago
23. Southern Illinois University
24. Indiana University
25. University of Iowa
26. University of Kansas
27. University of Louisville
28. University of Kentucky
29. Tulane University
30. Louisiana State University, New Orleans
31. Louisiana State University, Shreveport
32. University of Maryland
33. Johns Hopkins University
34. University of Massachusetts
35. Harvard Medical School
36. University of Michigan
37. Wayne State University
38. Michigan State University
39. University of Minnesota, Minneapolis
40. University of Minnesota, Duluth
41. University of Mississippi
42. University of Missouri, Columbia
43. University of Nebraska
44. Creighton University
45. University of New Mexico
46. Columbia University
47. State University of New York, Buffalo
48. State University of New York, Upstate
49. New York University
50. New York Medical College

51. University of Rochester
52. Einstein College of Medicine
53. University of North Carolina
54. Broman Gray School of Medicine
55. Duke University
56. University of North Dakota
57. Ohio State University
58. University of Oklahoma
59. University of Oregon
60. University of Pennsylvania
61. Medical College of Pennsylvania
62. University of Pittsburgh
63. Pennsylvania State University
64. University of Puerto Rico
65. Medical University of South Carolina
66. Vanderbilt University
67. Meharry Medical College
68. Baylor College of Medicine
69. University of Texas, Dallas Southwestern
70. University of Texas, San Antonio
71. University of Texas, Houston
72. Texas Tech University
73. University of Vermont
74. University of Virginia
75. Eastern Virginia Medical School
76. West Virginia University
77. University of Wisconsin

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